Paul Robbins training and consultancy

Management Accounting Decision and Control

High Low Technique With Quantity Discount – Exercise 2

Model Answer

You have been provided with the following information relating to total semi variable cost at different activity levels for a business.

Activity Level (Units)	*Total Semi Variable Cost (£)*
2,000	*35,000*
5,000	*~~60,000~~ 65,000*
3,000	*30,000*

It has been established that a quantity discount of £1 per unit applies to all units when production exceeds 4,000 units, and this has been taken into account in the total semi variable cost figures. The fixed costs do not incorporate any cost steps.

Required:

- ***Calculate the variable cost per unit***

  To calculate the variable cost per unit you firstly need to adjust the total semi variable cost for 5,000 units so that the effects of the quantity discount is ignored. The amount of the quantity discount is £5,000 (5,000 units x £1 per unit) and this is added onto the total semi variable cost of £60,000 to give £65,000. You can then calculate the variable cost per unit in the normal way.

  Difference in Total Semi Variable Cost / Difference in Activity Level

  £30,000 / 3,000 units

  £10.00 per unit

(If production exceeds 4,000 units the variable cost per unit is £9.00)

- ***Calculate the fixed cost***

  Fixed Cost = Total Cost – Variable Cost

  <u>For 2,000 units:</u>

  Fixed Cost = £35,000 – (2,000 x £10.00)

  Fixed Cost = £35,000 – £20,000

  Fixed Cost = £15,000

- ***Calculate the total cost for 3,000 units***

  Total Cost = Fixed Cost + Variable Cost

  Total Cost = £15,000 + (3,000 x £10.00)

  Total Cost = £15,000 + £30,000

  Total Cost = £45,000

- ***Calculate the total cost for 6,000 units***

  Total Cost = Fixed Cost + Variable Cost

  Total Cost = £15,000 + (6,000 x £9.00)

  Total Cost = £15,000 + £54,000

  Total Cost = £69,000